Data Issues

Hydrologists who use the computer programs PART, RORA, RECESS, and PULSE should be aware of data issues described below. These computer programs can read streamflow data obtained from USGS web sites. The versions of the programs that read such data have been available on web sites since 2002. Over the last few years there have been changes in the procedures for obtaining web data, and in July 2006 there was a change in data-file format which might affect program execution. Details are explained below.

Retrieving streamflow data from USGS web sites

Here are instructions for obtaining streamflow data from USGS web sites. These procedures are different from the instructions at the computer-program web sites. For example the following should be used instead of the second paragraph on page 3 of the User manual for PART –

A streamflow data file can be obtained from the following USGS web site: http://waterdata.usgs.gov/nwis/dv/?referred_module=sw. From this site, the user is first asked to "Choose Site Selection Criteria". For example, if the site of interest is Holiday Creek near Andersonville, Virginia, yet the site identification number is not known, the user might check the boxes for *State* and *Site Name* and then hit the "Submit" button. At the subsequent "Select sites that meet all of the following criteria" page, the user would then enter *Holiday* under site name, select the state of Virginia from the state list, check the "Streamflow, ft^3/s" box in the "Water Level/Flow Parameters" group of the Available parameters list, and then issue the request using the "Submit" button near the very bottom of the page. The subsequent page will be a list of all sites found that meet the specified criteria. Clicking on the site number will display a page including graph(s) of the previous 365 days of data. The final step to obtain a file of streamflow is to check the "00060 Discharge (Mean)" item under the Available parameters heading, choose "Tab-separated" from the Output format list, enter the Begin and End dates of interest, and then hit GO. Once the data are displayed in your browser select "Save as" from the file pull-down "file" menu of your browser and designate the directory where the data are to be written on the user's computer, and specify a file name. File names should be in the format *xxxxx.txt*, where *xxxxx* is an abbreviated station name. In this case the file name might be designated as *Holiday.txt*. (Note: the length of the file name, including *.txt*, should be 12 characters or less.) Designate file type should be "Text File (.txt)".

Data-file format

In July 2006 there was a change in the format of streamflow data files that come from USGS web sites. Prior to this date, if there was a gap in record for a given streamflow-gaging station, and if the user retrieved data from a time period that includes the gap, the data file would not include lines for days of missing data. New data files will include lines for every day in that gap. The computer programs were coded in a way that does not accommodate this change, and will not execute for such data files. To alleviate this problem (for the time being), edit the streamflow data file and look for gaps in record. If gaps are found, the lines showing missing streamflow data should be removed from the data file. The programs should work after such editing.

Another thing that might cause problems for the programs is if there is a comment of some kind attached to the streamflow data. This might be evident in recent data, from the last year. The user might need to remove comments if they are present.

Note – The corrections described here represent a quick fix. At a later date, the user manuals for all four programs will be edited so they will include up-to-date instructions for obtaining data files. Also at a later date, code modifications will be made in the computer programs so they will not be susceptible to problems caused by data gaps.

Al Rutledge, August 2006